CLAIMS

1. A polyamide-based multilayer film comprising at least one saponified ethylene-vinyl acetate copolymer layer and at least one polyamide layer,

the polyamide-based multilayer film being highly suitable for boiling and water treatment and retort treatment.

2. The polyamide-based multilayer film according to claim 1, wherein the saponified ethylene-vinyl acetate copolymer layer comprises a polyamide-based resin, an alcohol-based compound, and a saponified ethylene-vinyl acetate copolymer.

3. The polyamide-based multilayer film according to claim 2, wherein the saponified ethylene-vinyl acetate copolymer layer further comprises an inorganic water-absorptive substance.

4. The polyamide-based multilayer film according to claim 1, wherein the saponified ethylene-vinyl acetate copolymer layer is prepared by melt-blending a polyamide-based resin with an alcohol-based compound, and then adding a saponified ethylene-vinyl acetate copolymer.

5. The polyamide-based multilayer film according to any one of claims 2 to 4, wherein the polyamide-based resin comprises an aliphatic nylon as a principal ingredient, the saponified ethylene-vinyl acetate copolymer has an ethylene content of 60 mol% or less, and the degree of saponification of the vinyl acetate moieties is at least 90 mol%.

6. The polyamide-based multilayer film according to claim 1, wherein the polyamide layer is a layer comprising a polyamide and an antioxidant.

7. The polyamide-based multilayer film according to claim 6, wherein the polyamide comprises an aliphatic polyamide as a principal ingredient and the antioxidant is a phenol-based antioxidant.

8. The polyamide-based multilayer film according to claim 7, wherein the phenol-based antioxidant is at least one member selected from the group consisting of 3,9-bis[2-{3-(3-*t*-butyl-4-hydroxy-5-methylphenyl)propionyloxy}-1,1-dimethylethyl]-

2,4,8,10-tetraoxaspiro[5,5]undecane; 6-[3-(3-*t*-butyl-4-hydroxy-5-methylphenyl)propoxy]-2,4,8,10-tetra-*t*-butylbenz[d,f][1,3,2]dioxaphosphepin; and pentaerythrityl-tetrakis[3-(3,5-di-*t*-butyl-4-hydroxyphenyl)propionate].

9. The polyamide-based multilayer film according to any one of claims 1 to 8 consisting of at least one saponified ethylene-vinyl acetate copolymer layer and at least one polyamide layer.

10. The polyamide-based multilayer film according to any one of claims 1 to 8 comprising at least three layers in the order of polyamide layer/saponified ethylene-vinyl acetate copolymer layer/polyamide layer.

11. The polyamide-based multilayer film according to claim 10 further comprising an aromatic polyamide layer.

12. A method for producing a polyamide-based multilayer film, the method comprising the steps of:

coextruding a saponified ethylene-vinyl acetate copolymer layer (A) prepared by melt-blending a polyamide-based resin with an alcohol-based compound and then adding an ethylene-vinyl acetate copolymer thereto, together with polyamide layers (B) and (C) each comprising a polyamide and an antioxidant, in the order of (B)/(A)/(C) to form a laminated film; and

biaxially stretching the film.